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Defining the clinical syndrome of lumbar spinal stenosis: Results of an international Delphi study

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Abstract

Aims/Objectives:
Lumbar spinal stenosis (LSS) is a poorly defined clinical syndrome. Criteria for defining a syndrome should be informed by the experience of expert clinicians. The objective of this international Delphi study was to reach a consensus among experts on which factors are most important in diagnosis of LSS.

Methods:
In Phase 1 (Delphi Items) a multidisciplinary team of 12 experts in LSS complied a list of 14 clinical questions considered to be important in diagnosis of LSS. A consensus meeting of the 18 members of the International Taskforce on the Diagnosis and Management of LSS confirmed these 14 items. An innovative on-line survey was developed that permits specialists to express the value they place on these items, the logical order in which they consider the items, and the level of certainty ascertained from the questions. In Phase 2 (Delphi Study), Round 1, this survey was distributed to all members of the International Society for the Study of the Lumbar Spine. Following Round 1 completion, an in-person meeting of 9 members of the International Taskforce on Diagnosis and Management of LSS was conducted (Round 2). In Round 2 a consensus was reached on a final list of 10 survey items. In Round 3, the final version of the survey was distributed internationally to a wide group of experts, with the goal of obtaining 200 responses. Following Round 3, a final consensus meeting of the Taskforce took place.

Results or Potential Impact:
279 clinicians from 29 different countries, with an average of 19(12) years in practice, participated in Round 3. There was good representation by specialty and type of practice. The most commonly selected factors in diagnosis of LSS were: 1) leg or buttock pain while walking, 2) flex forward to relieve symptoms, 3) feel relief when using a shopping cart or bicycle, 4) motor or sensory disturbance while walking, 5) normal and symmetric foot pulses, 6) lower extremity weakness, 7) low back pain. Significant (P<.05) change in certainty ceased after 6 questions at 80% certainty. A final consensus meeting of the taskforce conformed these top 7 items.
Conclusions:

Within 6 questions, clinicians become 80% certain of the diagnosis of clinical LSS. This question set provides one pragmatic criterion for defining clinical LSS in care settings, and can be applied for standardization of inclusion for research studies. A second Delphi study is underway to determine which other factors, including physical examination, and diagnostic studies would increase certainty.